



Karan Raj Sharma

Roll No. 190101043

B.Tech. - Computer Science and Engineering

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Education

Indian Institute of Technology, Guwahati

B. Tech. - Computer Science and Engineering

July 2019 – May 2023

CPI - 8.51

Competitive Programming and Other Achievements

Codeforces: Candidate Master (Rating 1956), among top 0.3% Coders in India

[karan](#)

Global rank 50 (out of 17,763) in Codeforces Round 892

Global rank 58 (out of 14,954) in Codeforces Educational Round 151

CodeChef: Rating 2132, 5* Coder

[karan_04](#)

Google Code Jam 2022: Global rank 381 out of 15,000 in Round 1

CodeChef Lunchtime: Global rank 70 out of 5,000 participants

HackerRank: 5 star in C++ and Problem Solving

DevRev PPO: Received pre-placement offer for internship performance

JEE (Adv) 2019: All India Rank 510 out of 0.16 million candidates

Experience

AlphaGrep(HFT)

March 2023 – Present

Senior Analyst, Trading Systems

- Central Risk Service: Developing and optimizing the centralrisk service to compute portfolio risk across all levels in a low-latency environment.

- C++ Development: Implementing high-performance, low-latency components for trading systems using C++.

DevRev

July 2023 – March 2023

Member of Technical Staff

- AI Recommendations Framework: Created an algorithm-agnostic recommendation system with modular pipeline execution. Deployed a model that improved accuracy from 32.3% to 74.8%.

- Backend Systems: Architected directory/article schemas and APIs. Designed lexicographic average rank algorithm for consistent ordering.

- Chatbot Migration: Moved from CDC to SQS queues. Cut p99 latency from 8m 37s to 144ms.

Page Migration (BTP, C++)

Dec 2022 – Mar 2023

IIT Guwahati

Advisor: Dr. T. Venkatesh

- Simulator for Page Migration: Simulated remote/local memory migrations with custom hot page detection and LRU victim page strategy.

Projects

Personal Website

Oct 2022

React + TailwindCSS

[karan-sharma.netlify.app](#)

- Animated Responsive Site: Responsive site for resume with custom transitions.

A* Pathfinding Visualizer

July 2021

Python, Pygame, TKinter

[git.io/JlJwz](#)

- Interactive Visualizer: Users can select start/end nodes and view A* pathfinding in real-time.

Technical Skills

- Languages: C/C++, Python, Go, JavaScript, TypeScript

- Web Tech: HTML, CSS, React, Node.js, Tailwind CSS, Cypress

- Databases: MySQL, MongoDB

- Operating Systems: Linux, Windows, macOS

Key Courses Undertaken

- Computer Science: Data Structures and Algorithms, Operating Systems, Computer Networks, DBMS, Machine Learning, Deep Learning

- Mathematics: Probability and Random Processes, Linear Algebra, Engineering Mathematics